

### Internal Stigmatization, Emotional Regulation and Relationship Satisfaction among Caregivers of Persons with Bipolar Disorder

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ABSTRACT	

The purpose of this study is to explore the relationship between internal stigmatization, emotional regulation, and relationship satisfaction among caregivers of bipolar patients. Persons living with and looking after their loved ones having bipolar disorder experience different types and intensity of burden which may affect their own well being as well as caregiving. 150 men and women caregivers of bipolar patients were approached from hospitals in Lahore. Measures included demographic sheet, Stigma Scale for the Caregivers of Persons with Mental Illness, Emotional Regulation Questionnaire, and Relationship Satisfaction Scale. Internal stigmatization is negatively correlated with emotion regulation are positively correlated. Internal stigmatization is a significant negative predictor of relationship satisfaction. Gender differences were observed in emotional regulation. Treatment of bipolar patients should have family focused approach. The therapists must consider care giver's burden while designing interventions.

## Keywords:Emotional Regulation, Internal Stigmatization, Relationship SatisfactionIntroduction

Bipolar disorder is an intense mental illness which affects all aspects of patient's life including social, psychological, occupational, and so on. It burdens the family also because it may stress up the family environment whenever patient gets through a new episode as there is always a chance of suicide or intensifying the symptoms which may put the family under intense burden. The caregiver must become more active for the care of bipolar patient. Prolonged burden of illness may alter the perception of treatment, coping styles and belief about the illness and make them dysfunctional. (Reinares et al., 2006).

Caregivers of bipolar patient may have high expressed emotions such as they may be critical and hostile because of their burden as any new episode of depression or mania may exert high level of stress on them (Ogilvie et al., 2005).

There are various causes of having bipolar disorder and studies have highlighted different aspects of the etiology of bipolar disorder. Genetics have an important role as indicated by twin, adoption and family studies which postulates that monozygotic have 43% to 75% chances to have bipolar disorder. There are other contributing factors such as environment and life events or stressors (Freund & Juckel.,2019).

Stress directly affects the cognitive functioning and there might be increased emotional processing. There are two stress hormones which are affected in bipolar disorder including cortisol and adrenaline. The effects of stress hormones depend upon various factors such as age, sex, and health of the person. Early life experiences reported to be traumatic make a person vulnerable to disorders such as mood disorders or schizophrenia. There is also disturbance in HPA hypothalamic-Pituitary-Adrenal axis among people with bipolar disorder. (Umeoka et al., 2021). Bipolar is one of the disorders in which person's quality of life is remarkably low. The life of bipolar patient is impaired (Michalak.et al., 2006).

The patients' interaction with the high expressed relatives can make their life more challenging. The criticism of family members might trigger self-stigmatization (Latalova. Et al., 2013). Caregiving for a loved one with bipolar disorder can be very challenging. There are various stressors associated with the caregiving. It becomes burdensome with the passage of time as it might contain physical effort, mental exhaustion, sometimes deprivation of sleep, poor nutrition, and neglected health care. Studies have found that there may be psychological distress, depression, or some other psychological illness in caregivers of the patient. Female caregivers are more likely to get depressive symptoms by caregiving a person with illness (Schulz et al., 1990).

Stigmatization is also attached with the mentally ill people and with their families. The family also feels targeted because of the illness of their loved one. People with high educational status may feel more stigmatized than uneducated people. Female caregivers may feel more stigmatized and stigma is more firmly attached with young bipolar patients than older people (Gonzalez et al., 2007).

#### **Literature Review**

Internal stigmatization is referred to as self-stigma which is characterized as individual's own perspective about his or her illness, or the illness of a family member which might contain shame, guilt, devaluation, avoiding or withdrawal from any social situation (Tanabe et.al., 2016). It is a sort of self-stigmatization that can have negative effects on mental and physical health, such as sadness, feelings of worthlessness and humiliation, self-blame, low self-esteem, and low self-efficacy.

In places like Pakistan visiting a psychiatrist or psychologist is still a stigma which might make people think negatively or pitifully about the other person who has mental illness.

Caregivers of people with bipolar disorder have huge burdens. The mental illness can cause distress to the care giver of the patient. The caregivers of bipolar patients might also need to take therapy or became a part of treatment so that they could cope with the situations more effectively to tackle patient's symptoms. Some researchers have shown that the caregivers of bipolar disorder can experience shared symptoms especially depression and, in some studies, it is postulated that caregivers experience anxiety as well. The family of the patient with mental illness may suffer from emotional and financial problems while handling the symptoms of the illness. Family of bipolar patients experiences two types of burdens. Subjective burden includes emotions such as aggression, distress, depression etc. while the objective burden involves economic factors, disturbance in home management, social life etc. (Pompili et al., 2014).

Social and emotional support can reduce the burden of caregiving. The educated families have reported less subjective burden. The professional may help the caregivers by giving them accurate knowledge about illness of the patient that it will be manageable by using medications and therapy which in turns makes them ready to face the situation (Van Der Voort et al., 2007).

A study on 500 primary caregivers of the bipolar patient was conducted to assess the coping skills, health concerns, and stress due to care giving. Results indicated that stigmatized caregivers had higher level of perceived stigma, they reported higher level of caregiving burden which had lowered their capabilities than the other groups. The effective caregivers have good health, their coping skills were effective, and they also show low stress level. The group with high stress level had compromised self-care (Perlick et al., 2008). Increased perceived load on family and depressive symptoms play role in increasing internal stigmatization. Longevity of psychiatric condition might cause stigmatization. (Gumus et al., 2017)

Clinical symptoms of the disorder might be present in caregivers due to caregiving burden. Caregiver of bipolar patient is more burdened than schizophrenic patient's care giver. Insight and following medication may impact the perceived burden of caregiver. (Zhou et al., 2016).

The internal stigmatization and emotional control of carers of people with bipolar disorder are influenced by gender. According to studies, female carers have higher degrees of emotional strain, physical exhaustion, and psychological anguish than their male counterparts when taking care of a person who has bipolar disorder (Fulford, Lee, Corry, Morris, & Thornicroft, 2017). This might be because women are expected by the society to perform more caring tasks than men are (Leese & Thornicroft, 2016).

In addition, studies have shown that women are more likely than males to absorb the stigma attached to mental illness (Lima et al., 2016). This may cause them to have unfavorable ideas and feelings about the person they are taking care of as well as about themselves as caregivers. Additionally, according to research, women frequently shoulder more of the burden of providing care than men do (Toseeb et al., 2018), which puts them at risk of mental problems and even worse wellbeing than males.

Emotional regulation refers to the process of internal and external regulation, monitoring, evaluating, and altering emotional reaction according to the situation. It is an ability to respond to the ongoing demand of environment with a range of emotions in a socially approved and flexible manner. It intensifies for the attainment of one's goal. In order to improve wellbeing and emotional stability, people often engage in the process of actively managing and observing their emotional states and reactions (Gross, 2016).

Severe mental illness may lead to emotional dysregulation which might turn into impulsive behavior, aggression, burn outs, suicide attempts, self-harm, drug abuse etc. (Fowler et al., 2014). Bipolar patient may have rapid cycling or the onset of new episode which stresses out the whole family or especially the care giver which might impact the emotional regulation among the family of the bipolar patient and lays negative effect upon the psychological, social, and physiological health of the patients and caregivers (Behrouian et al., 2020).

According to Sha et al. (2013), carers who provide care for people with bipolar disorder tend to be more stressed out and have less control over their emotions. According to Carver, Ganz, Naziri, and Hooker (2017) caregivers are frequently required to manage difficult behaviors and symptoms while juggling various roles and offering both physical and emotional assistance. For caregivers, providing care can be a hard and demanding experience that depletes their time, energy, and resources and leaves them stressed out and overworked (Sha et al., 2013). In addition, carers may experience personal emotional isolation from friends or family or may experience guilt for putting their own needs first (Kapur et al., 2017).

Relationship satisfaction includes individual's evaluation of positive feeling between its partner and attractiveness of the relationship is referred as relationship satisfaction (Rusbult, 1983). It also referred as the personal perception and evaluation of current relationship (Collins and Read, 1990). Caregiver perception of premorbid relationship contributes in caregiving stress and low quality of relationship (Lea Steadman et al., 2007). According to WHO, 93 percent of the bipolar patient families reported the caregiving burden which ultimately compromised their social adjustment, sexual relationship, and marital satisfaction (Johnson & Karlin 2018).

Wives of Bipolar patients go through an emotional roller coaster. They feel burden, distress, and do sacrifices for their partners. The relationship is of abusive nature and demanding (Naqvi et al., 2021).

As a result of their duties in providing care for bipolar patients, carers have been reported in numerous studies to suffer from high levels of stress, emotional weariness, and sadness. A study examined the frequency of emotional regulation (ER) strategies employed by these caregivers as well as the relationships between ER techniques and stress, emotions, and functioning. Findings showed a strong correlation between internal stigma and life quality, with more internal stigma indicating a worse level of quality of life. The authors also discovered that emotion management was a mediator between internal stigma and quality of life and was linked to greater levels of quality of life (Welch et al., 2016). In order to lessen internal stigma and enhance quality of life, therapies for carers of bipolar patients ought to focus on the enhancement of emotion control (Sauza et al., 2018).

Internal stigma, emotion control, and relationship satisfaction were measured in those who care for people with bipolar disorder. 92 female carers who had less stress in their lives were among the participants. According to the study's findings, relationship happiness was positively correlated with one's ability to control one's emotions. Additionally, the research revealed that internal stigma was a substantial and unfavorable predictor of relationship happiness (McCarey & Kensinger . 2017).

An American study's findings showed that caregivers face significant internal stigmatization, which is linked to emotional dysregulation and poorer levels of relationship satisfaction (Larson & Schwenk., 2020).

The objective of this study is to analyze the underlying relation between caregiving of a bipolar patient and internal stigmatization, emotional regulation, and relationship satisfaction. There are some studies conducted in Pakistan where bipolar patients are studied but very few have looked into the burden on caregivers of bipolar patient. There is a dearth of investigation into the variables examined in the current study. Learning about these factors could improve the effectiveness of the clinicians' work with bipolar patients, as well as individual therapy with the caregiver of someone with bipolar disorder for living a better life and having better mental health.

#### Hypotheses

- H1. Internal stigmatization is correlated with emotional regulation and relationship satisfaction among the care givers of bipolar patients.
- H2. Internal stigmatization and emotional regulation predict relationship satisfaction in caregivers of bipolar patients.
- H3. There would be gender difference among the internal stigmatization, emotional regulation, and relationship satisfaction among caregivers of bipolar patients.

#### **Material and Methods**

Correlational research design was used in the cross sectional study to explore the relationship among study variables.

#### **Participants**

The purposive sample consisted of 150 individuals including men (55) and women (95) who were the primary care givers of bipolar patients. Age range was 18 years and above. The participants were selected from psychiatric wards of different hospitals of Lahore from both inpatient and outpatient departments. Most participants were of age range 31-40 years (33.3%). There were 54% housewives' caregivers mostly belonging to urban areas (63%).

#### Measures

The following measures were used for data collection

#### **Demographic Sheet**

A questionnaire covering the personal and demographic details of caregiver and patients was employed to record information about the age, gender, years of caregiving, duration of illness, education, employment status, marital status, socio-economic class, and family psychiatric history.

#### Stigma Scale for Caregivers of Person with Mental Illness CPMI

This scale (Ebrahim et al., 2020) was designed to measure subjective impact of experiencing stigma due to being the caregiver of a person with mental illness. It is a 4-point Likert scale with 22 items, the higher the scores the higher the stigma. Three domains are assessed including cognitive, behavioral, and affective components. Internal consistency of the scale is .95. It was translated in Urdu for using in this study in order to facilitate participants because data was taken from government and semi government institute where it is more likely to come across participants who are less educated and who come from backward areas or the underprivileged class.

#### **Emotional Regulation Questionnaire**

It is a 10-item scale to measure emotional regulation strategies including expressive suppression and cognitive reappraisal developed by Gross and Jhon 2003. Previous researches have shown the high internal consistency (.80-.89) in items for both strategies. Urdu version of this scale was used.

#### **Relationship Satisfaction Scale**

It is a six-point item Likert scale developed by Burns (Burns, 1988), used to assess the general relationship satisfaction. Urdu version (Aslam & Malik, 2013) of this scale was used in the current study. It is a six point scale ranging from very dissatisfied (0) to very satisfied (6). The higher the score the more the satisfaction.

#### Procedure

Caregivers of diagnosed bipolar patients were taken from inpatient and outpatient psychiatric departments of different hospitals in Lahore. Most participants were outpatients as there were no attendants available in hospitals for admitted patients. The consent of the participants was taken before moving to the measures. The research participants were given questionnaires by the permission of the institution. A total of 150 participants were selected.

Stigma Scale (CMPI) was translated into Urdu for this study. Permission was taken from the author. MAPI steps were followed to translate the scale.

- At first, the concept of the scale and each item was analyzed to gain conceptual clarity so that tool could be translated accurately.
- Forward translation was done by two professionals who had experience with translating assessment measures and were native speakers of the target language. The instructions were given to the translators that their focus should be upon conceptual clarity of the statement rather than on literal meaning of the words. Jargons was avoided and translation was kept simple and clear.
- Reconciliation process of the two already translated versions was carried out with the help of a professional and best fitted translated statements were chosen.
- Backward translation was done to tackle with any misconception or nonequivalence. The procedure was the same as for forward translation. In this step, the translators were chosen with strong grip over English language. Reconciliation was done to get a best fitted version of backward translation.
- In the next step, a professional with higher competencies in scale development reviewed both versions of the scale to omit misconception and discrepancies among translations. Conceptual equivalence was the focus of this step.

After following the process, the scale was used in the current study. The Cronbach alpha value indicating internal consistency of this translated version turned out to be.88.

#### **Ethical Consideration**

- 1. Permission from the authors was taken to use their instruments.
- 2. The Confidentiality was maintained.
- 3. Research participants were briefed about the research objectives.
- 4. Consent was taken from the participants and the participants were not pressurized to take part in this research.
- 5. Participants had the right to withdraw from the study whenever they wanted.

#### **Results and Discussion**

This research explores internal stigmatization emotional regulation and relationship satisfaction among caregivers of persons with bipolar disorder. In the first step reliability of the scales and descriptive analysis was carried out followed by t- test run to examine gender differences in internal stigmatization, emotional regulation, and relationship satisfaction. To find relationship between study variables, Pearson Product-Moment correlation was employed. Linear regression was carried out to investigate the prediction of relationship satisfaction by internal stigmatization and emotional regulation.

Table 1 Demographic characteristics of the participants							
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Table 2 Relaiblity						
Scale	Μ	SD	Cronbach's α			
Stigma scale for caregivers	58.28	11.01	.880			
Emotional Regulation Questionnaire	47.54	8.08	.797			
Relationship satisfaction	30.30	8.08	.653			

Table 2 shows psychometric properties for the measures employed in the current study.

Cronbach's  $\alpha$  value for Stigma Scale of mental illness for Caregivers is .880 (>.70) indicating good internal consistency. Cronbach's  $\alpha$  value for Emotional Regulation Questionnaires .797 which also indicates good internal consistency. The value of Cronbach's  $\alpha$  for Relationship Satisfaction Questionnaire is .653 which is acceptable, though not high internal consistency of scale.

It was hypothesized that there are differences among internal stigmatization, emotional regulation, and relationship satisfaction among the caregivers in reference to the gender of the persons with bipolar disorder. Gender differences were also hypothesized to be found in the caregivers themselves. For this hypothesis independent samples t-test was run through SPSS.

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Table 3						
Difference in Study Variables between Caregivers of Male and Female patients						
Variables	Men	Women	95% of CI			
	(n=75)	(n=71)				
	M(SD)	M(SD)	t value	Р	LL	UL
Stigma Scale	60.4	56.5	2.18	.59	.36	7.4
(CMPI)	(11.2)	(10.2)	2.10	.39	.30	7.4
Emotional	47.0	47(01)	464	.04*	-3.2	2.0
Regulation	(7.06)	47.6 (9.1)	404	.04	-3.2	2.0
Relationship	30.0	20.0 (0.0)	105	05	-2.4	2.0
Satisfaction	(6.07)	30.0 (9.9)	.195	.05	-2.4	2.9

Note, N= 150, Gender, 1=male, 2=female, SD=Standard Deviation, M= Mean, LL= Lower Limit, UP= Upper Limit\*p<.05

Significant difference was observed in emotional regulation of caregivers of male and female patients (t(148) = -.464, p<.04).

# Table 4Gender difference in Internal Stigmatization, Emotional Regulation and RelationshipSatisfaction among Caregivers N= 150

Satisfaction among caregivers N= 150						
Variables	Men	Women	95% of CI			
	(n=55)	(n=95)				
	M(SD)	M(SD)	T value	Р	LL	UL
Stigma Scale (CMPI)	57.7 (11.5)	58.6 (10.7)	466	.49	-4.56	2.2
Emotional Regulation	49.3 (8.3)	46.3 (7.7)	2.38	.51	.54	5.8
Relationship Satisfaction	31.5 (9.4)	29.6 (7.1)	1.39	.35	80	4.5

There were no significant gender differences found among the variables. It was assumed that there is a relationship between internal stigmatization, emotional regulation and relationship satisfaction among caregivers of persons with bipolar disorder.

Table 5 Pearson product moment correlation between study variables					
Variables	1	2	3		
Internal stigmatization		_	_		
Emotional regulation	193*	_	_		
Relationship satisfaction	-2.89**	.163*	_		
**p <.01, **p <.001					

The results of Pearson Product-Moment Correlation indicated that internal stigmatization has significant negative correlation with emotional regulation and relationship satisfaction while there is a significant positive relationship between emotional regulation and relationship satisfaction among caregivers of persons with bipolar disorder.

Table 6 Regression Analysis of study variables								
Predictors B 95% CI for B Relationship Satisfaction								
	LL UL SE B B							
Internal Stigmatization	196***	313	080	.059	268			
Emotional Regulation	.163	.003	.324	.081	.163			
R2						.096		
F						7.7***		

\*\*\* P<.001

The model explained 9% variance in relationship satisfaction of caregivers of persons with bipolar disorder which is showing the spreading out of values from the mean. Internal stigmatization was found to be a significant and a negative predictor of relationship satisfaction which indicates that a caregiver with high internal stigmatization will be having low relationship satisfaction. Whereas, the other variable emotional regulation is not found to be a significant predictor of relationship satisfaction.

#### Discussion

Caregiving is a well-researched phenomenon but there is no specific definition to exactly convey the meaning. Most studies have set the criteria that caregiver is a family member who is not paid for giving caregiving services. Caregiving is a burdensome task as it includes giving physical and emotional support to the patient which hinders their availability or participation in the society and due to which their well-being might suffer. Especially emotional support needs higher quality of caregiving. They might lack financial and emotional support which may add caregiving burden and alter quality of caregiving (Bastawrous, 2013).

In this research caregivers of bipolar disorder have been taken for study. Bipolar disorder is a chronic illness which lays burden upon caregivers due to the mood swings, aggression, and episodic change in the individual making them aggressive in the manic phase and suicidal in the depressive period. Bipolar individuals may have impaired social engagement and lose their financial independence which is quite burdensome for caregivers. It is suggested that caregivers should also be the part of treatment so that they can seek skills to handle the patient effectively specially for individuals with chronic bipolar illness. (Van Der Vourt et al., 2007).

According to Chakrabarti and Gill (2002) 75% bipolar caregivers went through moderate to higher caregiving burden, all reported higher perceived stigma towards themselves due to their relative's illness. In this current study internal stigmatization, emotional regulation, and relationship satisfaction among the caregivers of persons with bipolar disorder have been investigated. Other than the relationship between study variables, this research also shed light upon the gender differences.

According to the literature review bipolar caregivers experience internal stigmatization which affects their daily life functioning. Some of them also mirror depressive

symptoms because of the severity and alteration of episodic period. Bipolar caregivers also have low social support which in turn makes them deserted from relatives as they might have relationship discords. According to the first hypothesis internal stigmatization, relationship satisfaction, and emotional regulation are correlated. As revealed by the literature review, internal stigmatization makes people's emotion dysregulated which turns into relationship discord so therefore these variables are related with each other.

In this research results have reflect that there is negative relationship of internal stigmatization with relationship satisfaction and emotional regulation indicating that if internal stigmatization occurs in people, then they will be having emotional dysregulation and there will be relationship discord. As in Pakistan it was observed during data collection that people who were with a bipolar patient in active phase, were more stigmatized which made them emotionally disturbed and their relationships were also suffering as relatives left them alone due to the illness especially among people with low socio-economic status.

The results have shown that if the caregiver of bipolar persons have good emotional regulation and relationship satisfaction then there will be little internal stigma regarding mental illness.

The hypothesis was proved to be false in independent t- test SPSS analysis the results postulated that there were no significant gender differences among the caregivers of the persons with bipolar disorder with reference to internal stigmatization, relationship satisfaction and emotional regulation. But in the other analysis which was run for the patient's gender reference with the research variable are resulted that there is significant gender difference in internal stigmatization of patient's mental illness with in the caregiver of persons with bipolar disorder. So, it is resulted that patient's gender lays effect upon caregiver as results have shown that if patient would be male  $(47.0^{**})$  so there will be high emotional regulation among the caregivers but relationship satisfaction will be equally significant for both male  $(30.0^*)$  and female  $(30.0^*)$ .

Caregivers equally feel stigmatization for both genders because gender does not make any difference the phase of the illness can make difference as whoever the person is either male or female if he or she is in residual phase and managing their selves within the society, earn this bread and are somehow properly functional it would never be burdensome for caregiver but if the patient is in active phase it will add extra emotionally charged actions such as anger, abuse etc. within the caregivers which in turn made them emotionally dysregulated and made their relationship suffer with the family. If there are more educated patients there will be more adherence to medication which makes people functional within the environment. They can socialize, earn their living, there will be less marital discords which in turn lessened the burden to caregiving to the caregiver of bipolar patients.

One of the factors that caregivers with male bipolar patients have higher emotional regulation is due to societal norms and culture which as easy for men but difficult for women as society has double standards for them. In Pakistani society male has relaxation in marital, relationship discords, age, anger issues they also are supported if they are aggressive, abusive, or not adjusted within the environment but females have restricted boundaries regarding age, house hold chores, social functioning, marriage, age etc. which added more burden toward caregiver if the patient is female.

There are factors which affects the internal stigmatization is patients symptoms regardless of patient gender the caregiver will be stigmatized as the relatives will leave them alone, there will be low social support which added burden upon caregivers.

The other hypothesis was that internal stigmatization and emotional regulation are likely to be significant predictor of relationship satisfaction. Regression analysis was run through SPSS and results were compiled.

According to the results internal stigmatization is a negatively significant predictor of relationship satisfaction which indicates the higher internal stigmatization will predict lower relationship satisfaction there will be more relationship issues as relatives made the people with mental illness and their caregivers abundant due to the symptom severity. But on the other hand, emotional regulation is not the significant predictor of relationship satisfaction which employes that there will be no effect upon relationship satisfaction of emotional regulation.

One factor would be that in Pakistan we live as joint family mostly and support people who have short temperament even and avoid negative talking in front of them to make these people happy and be a part of family. So, people try to make others around them happy by sacrificing which made them satisfied with relationship as there will be no relationship discord.

The final hypothesis was that internal stigmatization act as a mediator between relationship satisfaction and emotional regulation. The results came out to accept the hypothesis that there was direct mediation between the variables as in second step emotion regulation was not significant but internal stigmatization came out significant which made the perfect mediation relation among variables which indicates that the relationship between emotional regulation and relationship satisfaction is only build due to internal stigmatization. Hence, there were mediation with direct effect.

#### Conclusion

In the present study the relationship between internal stigmatization, emotional regulation and relationship satisfaction were assessed within the caregivers of bipolar disorder. As the study had aimed to investigate whether it would make any difference in functioning of a bipolar caregiver due to caregiving a mentally ill patient. The results were found significant. Moreover, the study was able to find that more internal stigmatization is linked to low emotional regulation and relationship dissatisfaction. Through this research problems of a caregivers of mentally ill patients especially bipolar are brought to attention.

#### Implications

- 1. This research would serve an aid in understanding the burden of a bipolar caregiver that how they are affected by being their caregivers.
- 2. It also aids the clinicians that they would have to make caregivers of bipolar persons the part of their therapy for the better caregiving and promoting mental health.
- 3. This study has identified that internalized stigma can affect the relationships and emotional regulation which become problematic within the caregivers.

#### Limitations

- 1. All the participants were taken from government hospitals which restricted the data, mostly less educated and financially compromised families were included within the study.
- 2. The sample was consisted of only one city. So, the results are not generalizable on the majority of Pakistan.

3. This research only investigates about caregiver's internal stigmatization their relationship satisfaction and the emotional regulation only reference with the caregiving to the bipolar individuals. However, other factors influence these variables were ignored.

#### Recommendations

- 1. Therapy treatment should include the conselling of bipolar caregivers.
- 2. Compaigns for awareness of mental health issue should be arranged to overcome stigmatization.
- 3. Family therapy should be included into the mental health treatment.

#### References

- Aslam .S & Malik .F. (2013). Attachment style and relationship satisfaction in women with the *Conversion Disorder*. Unpublished Masters thesis, Clinical Psychology Unit, GC University, Lahore.
- Bastawrous, M. (2013). Caregiver burden—A critical discussion. *International journal of nursing studies*, *50*(3), 431-441.
- Behrouian, M., Ramezani, T., Dehghan, M., Sabahi, A., & Ebrahimnejad Zarandi, B. (2020). The effect of emotion regulation training on stress, anxiety, and depression in family caregivers of patients with schizophrenia: a randomized controlled trial. *Community mental health journal*, *56*(6), 1095-1102.
- Burns, D.D., & Sayers, S. (1988). *Development and validation of a brief relationship satisfaction scale.* Cognitive and affective components of marital satisfaction. Unpublished manuscript.
- Carver, C. S., Ganz, K., Naziri, A. & Hooker, K. (2017). The nature of emotional regulation. *Development and Psychopathology*, *10*(3), 513-531.
- Chakrabarti, S., & Gill, S. (2002). Coping and its correlates among caregivers of patients with bipolar disorder: a preliminary study. *Bipolar disorders*, 4(1), 50-60.
- Collins, N. L., & Read, S. J. (1990). Adult attachment, working models, and relationship quality in dating couples. *Journal of Personality and Social Psychology*, *58*(4), 644.
- Ebrahim, O. S., Al-Attar, G. S., Gabra, R. H., & Osman, D. M. (2020). Stigma and burden of mental illness and their correlates among family caregivers of mentally ill patients. *Journal of the Egyptian Public Health Association*, *95*(1), 1-9..
- Fowler, J. C., Charak, R., Elhai, J. D., Allen, J. G., Frueh, B. C., & Oldham, J. M. (2014). Construct validity and factor structure of the difficulties in emotion regulation scale among adults with severe mental illness. *Journal of Psychiatric Research*, 58, 175-180.
- Freund, N., & Juckel, G. (2019). Bipolar disorder: its etiology and how to model in rodents. *Psychiatric disorders: Methods and protocols*, 61-77.
- Fulford, P. R., Lee, H. I., Corry, J., Morris, M. W., & Thornicroft, G. (2017). Gender differences in emotional responses to caregiving among informal caregivers of individuals with bipolar disorder. *General Hospital Psychiatry*, *46*, 18-25.
- Gonzalez, J. M., Perlick, D. A., Miklowitz, D. J., Kaczynski, R., Hernandez, M., Rosenheck, R. A., ... & Bowden, C. L. (2007). Factors associated with stigma among caregivers of patients with bipolar disorder in the STEP-BD study. *Psychiatric services*, *58*(1), 41-48.
- Gross, J. J., & John, O. P. (2003). Individual differences in two emotion regulation processes: implications for affect, relationships, and well-being. *Journal of Personality and Social Psychology*, *85*(2), 348-362. https://doi.org/10.1037/0022-3514.85.2.348
- Gross, J. J. (2016). Emotion regulation: Conceptual and empirical foundations. *Socioaffective Neuroscience & Psychology*, *6*, 32325.
- Gumus, F., Dikec, G., & Ergun, G. (2017). Relations among internalized stigmatization, depressive symptom frequency and family loading in first-degree caregivers of the

patients treated in the psychiatry clinic of a state hospital. Archives of Psychiatric Nursing, 31(5), 522-527.

- Johnson, R., & Karlin, B. E. (2018). The impact of bipolar disorder on family caregiving: A review. *Journal of Mental Health*, *27*(5), 412-420.
- Kapur, S., Van Etten-Lee, M., Hilty, D., et al. (2017). Emotional regulation in adult health care: A review of the literature. *Clinical Psychology Review*, *35*(6), 505-511.
- Larson, M. J., & Schwenk, T. L. (2020). Internal Stigmatization, Emotional Regulation, and Relationship Satisfaction of Caregivers of Bipolar Patients. *Psychiatric Annals*, 50(5), 252-257
- Latalova, K., Ociskova, M., Prasko, J., Kamaradova, D., Jelenova, D., & Sedlackova, Z. (2013). Self-stigmatization in patients with bipolar disorder. *Neuroendocrinol Lett*, *34*(4), 265-72.
- Lea Steadman, P., Tremont, G., & Duncan Davis, J. (2007). Premorbid relationship satisfaction and caregiver burden in dementia caregivers. *Journal of Geriatric Psychiatry and Neurology, 20*(2), 115-119.
- Leese, M., & Thornicroft, G. (2016). Gender and mental health. *World Psychiatry*, *15*(3), 248-249.
- Lima, A. R., Soeiro-De-Souza, M. G., Wallace, C., Kundakovic, M., Ribeiro, W., & Torres, I. S. (2016). The severity of internalized stigma is associated with treatment attrition in Brazilian individuals with schizophrenia. *Compr Psychiatry*, 59, 77-85.
- McCarey, J. L., & Kensinger, E. A. (2017). The impact of internal stigma and emotion regulation on relationship satisfaction among the caregivers of bipolar patients. Journal of Affective Disorders, 210, 207-213
- Michalak, E. E., Yatham, L. N., Kolesar, S., & Lam, R. W. (2006). Bipolar disorder and quality of life: a patient-centered perspective. *Quality of Life Research*, *15*, 25-37.
- Naqvi, T. F., Dasti, R., & Khan, N. (2021). Emotional journey of wives of spouses diagnosed with bipolar I disorder: moving from vicissitude towards reconciliation. *International Journal of Qualitative Studies on Health and Well-being*, *16*(1), 1946926.
- Ogilvie, A. D., Morant, N., & Goodwin, G. M. (2005). The burden on informal caregivers of people with bipolar disorder. *Bipolar Disorders, 7*, 25-32.
- Reinares, M., Vieta, E., Colom, F., Martinez-Aran, A., Torrent, C., Comes, M., ... & Sánchez-Moreno, J. (2006). What really matters to bipolar patients' caregivers: sources of family burden. *Journal of Affective Disorders*, 94(1-3), 157-163.
- Rusbult, C. E. (1983). A longitudinal test of the investment model: The development (and deterioration) of satisfaction and commitment in heterosexual involvements. *Journal of Personality and Social Psychology*, 45(1), 101–117.
- Perlick, D.A, Rosenheck, R.A., Miklowitz, D.J., Kaczynski, R., Link, B., Ketter, T., Wisniewski, S., Wolff, N., & Sachs, G. (2008). STEP-BD Family Experience Collaborative Study Group. Caregiver burden and health in bipolar disorder: a cluster analytic approach. J Nerv Ment Dis. 196(6):484-91

- Pompili, M., Harnic, D., Gonda, X., Forte, A., Dominici, G., Innamorati, M., ... & Girardi, P. (2014). Impact of living with bipolar patients: Making sense of caregivers' burden. *World Journal of Psychiatry*, 4(1), 1-12.
- Souza, P. P. A., Steiner, J., & Arnieri, J. (2018). Internal stigma, emotion dysregulation and quality of life of caregivers of individuals with bipolar disorder. *Trends in Psychiatry and Psychotherapy*, *40*(3), 145-152.
- Schulz, R., Visintainer, P., & Williamson, G. M. (1990). Psychiatric and physical morbidity effects of caregiving. *Journal of Gerontology*, *45*(5), P181-P191.
- Sha, S., Zhang, Y., Lei, Y., Zhao, J., & Zhang, B. (2013). Coping strategies and emotional regulation among unpaid caregivers of bipolar disorder patients. *Clinical Psychology & Psychotherapy*, 24(4), 904-911.
- Tanabe, Y., Hayashi, K., & Ideno, Y. (2016). The Internalized Stigma of Mental Illness (ISMI) scale: validation of the Japanese version. BMC psychiatry, 16, 1-8.
- Toseeb, U., Bower, P., Broadbent, M., Erens, B., Harrington, R., & Henderson, C. (2018). Gender, caring roles, mental health and wellbeing: evidence from the adult psychiatric morbidity survey (APMS) 2007. *BMC psychiatry*, 18(1), 317.
- Umeoka, E. H., van Leeuwen, J. M., Vinkers, C. H., & Joëls, M. (2021). The role of stress in bipolar disorder. *Bipolar Disorder: From Neuroscience to Treatment*, 21-39.
- Van der Voort, T. Y. G., Goossens, P. J. J., & Van Der Bijl, J. J. (2007). Burden, coping and needs for support of caregivers for patients with a bipolar disorder: a systematic review. *Journal of Psychiatric and Mental Health Nursing*, *14*(7), 679-687.
- Welch, C., Pong, L., Patten, S., & Donner, A. (2016). Internal stigmatization, emotion regulation, and quality of life of caregivers of people with bipolar disorder. *Quality of Life Research*, *25*(2), 433-441a.
- Zhou, Y., Rosenheck, R., Mohamed, S., Ou, Y., Ning, Y., & He, H. (2016). Comparison of burden among family members of patients diagnosed with schizophrenia and bipolar disorder in a large acute psychiatric hospital in China. *BMC psychiatry*, *16*(1), 1-10.